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(72) Inventors:
• Masaharu, Ogawa, c/o Fuji Photo Film Co., Ltd.,
Ashigarakami-gun, Kanagawa-ken (JP)
• Shinji, Imai, c/o Fuji Photo Film Co., Ltd.,
Ashigarakami-gun, Kanagawa-ken (JP)
• Toshitaka, Agano, c/o Fuji Photo Film Co., Ltd.,
Ashigarakami-gun, Kanagawa-ken (JP)

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(71) Applicant: Fuji Photo Film Co., Ltd.
Kanagawa-ken (JP)

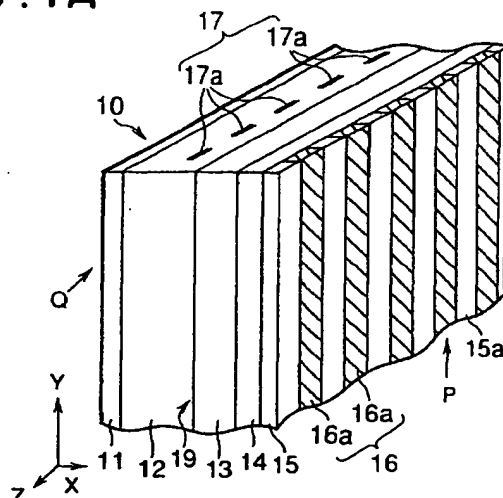
(74) Representative: Klunker . Schmitt-Nilson . Hirsch
Winzererstrasse 106
80797 München (DE)

(54) Method and device for recording and reading a radiation image using solid state radiation detectors

(57) With a detector 10 with which a first electrode layer 11, a photoconductive layer for recording, 12, exhibiting conductivity when irradiated with recording light L1, a charge transporting layer 13 acting roughly as a conductor for transported charges opposite in polarity to the latent image charges, a photoconductive layer for reading, 14, exhibiting conductivity when irradiated with reading light L2, and an electrode layer 15 having a

stripe electrode are stacked together, a sub-electrode 17, a number of elements 17a of which are each located just above an element 16a, being disposed so that they are opposed to each other, is provided in the vicinity of a charge storing section 19 in the photoconductive layer for recording, 12. In recording, a specified control voltage is applied to the sub-electrode 17 from a power supply 73. In reading, the current flowing out from each element 17a of the sub-electrode 17 is detected.

FIG. 1A



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EUROPEAN SEARCH REPORT

Application Number
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| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|--|---|---|---|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IntCl.7) |
| X | EP 0 898 421 A (FUJI PHOTO FILM CO LTD) 24 February 1999 (1999-02-24) * column 3, line 38 - column 4, line 13 * * column 7, line 20 - column 12, line 35 * * column 17, line 10 - column 20, line 17 * * column 27, line 52 - column 35, line 44 * * figures 1,11,13,15 * | 1,4,6-9, 11,13 | 601T1/24 601T1/29 |
| Y | | 2,3 5,10,12 | |
| A | | | |
| Y | EP 0 574 689 A (DU PONT) 22 December 1993 (1993-12-22) * column 7, line 28 - line 36 * * column 14, line 5 - line 9 * | 2,3 | |
| | | | TECHNICAL FIELDS SEARCHED (IntCl.7) |
| | | | G01T |
| The present search report has been drawn up for all claims | | | |
| Place of search MUNICH | | Date of completion of the search 6 September 2002 | Examiner Coda, R |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p> | | | |

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ON EUROPEAN PATENT APPLICATION NO.**

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|----------------------------|---------------------|
| EP 0898421 A | 24-02-1999 | EP 0898421 A2 | 24-02-1999 |
| | | JP 2000105297 A | 11-04-2000 |
| | | US 6268614 B1 | 31-07-2001 |
| EP 0574689 A | 22-12-1993 | US 5331179 A | 19-07-1994 |
| | | DE 69327887 D1 | 30-03-2000 |
| | | DE 69327887 T2 | 05-10-2000 |
| | | EP 0574689 A2 | 22-12-1993 |
| | | JP 3226661 B2 | 05-11-2001 |
| | | JP 6217322 A | 05-08-1994 |

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82